

**Notice of Allowability**

Application No.

09/976,195

Examiner

James Arnold, Jr.

Applicant(s)

KHARE, GYANESH P.

Art Unit

1764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed on 7 June 2004.
2. ☒ The allowed claim(s) is/are 17-31.
3. ☐ The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

Art Unit: 1764

**DETAILED ACTION**

**EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Lynda Jolly on June 17, 2004.

The application has been amended as follows:

**Claims 32 and 33 have been cancelled.**

IN THE CLAIMS

Please cancel claims 1 - 16 and 32 - 51 without prejudice.

1. Cancelled
2. Cancelled
3. Cancelled
4. Cancelled
5. Cancelled
6. Cancelled
7. Cancelled
8. Cancelled
9. Cancelled
10. Cancelled
11. Cancelled
12. Cancelled
13. Cancelled
14. Cancelled
15. Cancelled
16. Cancelled

17. (Original) A process of making a sorbent composition,  
said process comprising the steps of:

- (a) admixing zinc oxide and a carrier to provide a support mix;
- (b) particulating the support mix to provide a support particulate;
- (c) incorporating said support particulate with a noble metal to provide a promoted particulate comprising an unreduced noble metal; and
- (d) reducing said promoted particulate to provide a reduced sorbent composition comprising a reduced-valence noble metal.

18. (Original) A process in accordance with claim 17 wherein said reduced-valence noble metal has a valence which is less than the valence of said unreduced noble metal.

19. (Original) A process in accordance with claim 18 wherein said carrier comprises a silica compound and an alumina compound.

20. (Original) A process in accordance with claim 17 wherein said reduced-valence noble metal has a valence of less than 2.

21. (Original) A process in accordance with claim 20 wherein said promoted particulate is dried and calcined before reduction.

22. (Original) A process in accordance with claim 21 wherein said support particulate is dried and calcined before incorporation with said noble metal.

23. (Original) A process in accordance with claim 22 wherein said reduced-valence noble metal comprises platinum.

24. (Original) A process in accordance with claim 17 wherein said support mix is selected from the group consisting of a wet mix, a dough, a paste, and a slurry, and wherein said support particulate is selected from the group consisting of a granulate, an extrudate, a tablet, a sphere, a pellet, and a microsphere.

25. (Original) A process in accordance with claim 24 wherein said support particulate comprises a microsphere.

26. (Original) A process in accordance with claim 17 wherein said support mix is in the form of a slurry and said particulating comprises spray drying said slurry to form a microsphere.

27. (Original) A process in accordance with claim 26 wherein said microsphere has a mean particle size in the range of from about 1 micrometer to about 500 micrometers.

28. (Original) A process in accordance with claim 17 wherein said incorporating is selected from the group consisting of impregnating, soaking, spraying, and combinations thereof.

CLMPTO

June 24, 2004

29. (Original) A process in accordance with claim 17 wherein said incorporating comprises incipient wetness impregnation.

30. (Original) A process in accordance with claim 17 wherein said reduced-valence noble metal has a valence of zero.

31. (Original) A process in accordance with claim 30 wherein said reduced-valence noble metal component comprises platinum.

Claims 32-51 are canceled.

***Allowable Subject Matter***

The following is an examiner's statement of reasons for allowance: The prior art of record does not disclose a process for making a sorbent composition suitable for desulfurization comprising the steps of (a) admixing zinc oxide and a carrier to provide a support mix; (b) particulating the support mix to provide a support particulate; (c) incorporating said support particulate with a noble metal to provide a promoted particulate comprising an unreduced noble metal; and (d) reducing said promoted particulate to provide a reduced-valence noble metal.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Arnold, Jr. whose telephone number is 571-272-1443. The examiner can normally be reached on Monday-Thursday 8:30 AM-6:00 PM; Fridays from 8:30 AM-5:00 PM with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 571-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

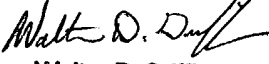
Application/Control Number: 09/976,195

Art Unit: 1764

Page 8

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ja  
June 16, 2004

  
**Walter D. Griffin**  
**Primary Examiner**